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EXAMINER	
BODDIE, WILLIAM	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/613,449	UTT ET AL.	
	Examiner	Art Unit	
	William Boddie	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-43 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-16, 18-19, 22-23, 25, 27, and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939).

With respect to claim 1, Young discloses, a display system comprising: a display surface having a three-dimensional convex shape (53 in fig. 5); and a projection system for projecting an object field onto a continuous image filed on an interior of the display surface (note fig. 8 and fig. 9a), wherein a ratio of a longest image distance to a shortest image distance is at least 1.75 (clear from fig. 8, 9a, and 16)

Young does not expressly disclose projecting an intermediate image at an object field onto a continuous image field.

Colucci discloses, using incoherent light sources (col. 4, lines 9-24) to project an intermediate image (intermediate image plane in fig. 3) at an object field onto a continuous image field (62 in fig. 4).

Colucci and Young are analogous art because they are both from the same field of endeavor namely, wide-angle projection displays.

At the time of the invention it would have been obvious to replace the laser system of Young with the image source (36 in fig. 3) and relay lens assembly (32 in fig. 3) of Colucci, thereby generating an intermediate image field.

The motivation for doing so would have been to reduce the cost of the device significantly.

Therefore it would have been obvious to combine Colucci with Young for the benefit of lower cost to obtain the invention as specified in claim 1.

With respect to claims 2 and 3, Young and Colucci disclose a display system of claim 1 (see above).

Young further discloses figures that have an image field that would satisfy both limitations (the degree with which the image field subtends is seen as being measured from the spherical center of the convex display surface; not in degrees between the widest rays upon exit of the lens; note ray 191 in fig. 9a, as well as figures 8 and 16;).

With respect to claim 4, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the display surface is approximately spherical (85 in fig. 8).

With respect to claim 5, Young and Colucci disclose, the display system of claim 4 (see above).

Young further discloses, wherein the display surface is translucent (col. 6, lines 19-24).

With respect to claim 6, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the display surface includes an aperture (surrounding the lens 193 in fig. 9a), and the image field covers substantially the entire interior of the display surface exclusive of the aperture (note ray 191 in fig. 9a).

With respect to claim 7, Young and Colucci disclose, the display system of claim 6 (see above).

Young further discloses, physical support for the display surface, wherein the physical support hides the aperture from view (70 and 74 in fig. 7).

With respect to claim 8, Young and Colucci disclose, the display system of claim 6 (see above).

Colucci further discloses, wherein the projection system has an optical axis that enters the interior of the display surface via the aperture (note the placement of the image source 36 in fig. 3; clearly the optical axis enters the interior of the display surface).

With respect to claim 9, Young and Colucci disclose, the display system of claim 8 (see above).

Colucci further discloses, wherein the optical axis is tilted relative to vertical (fig. 2; column 3, lines 47-58)

At the time of the invention it would have been obvious to one of ordinary skill in the art to tilt the spherical display of Young as taught by Colucci.

The motivation for doing so would have been to accommodate different audience configurations.

With respect to claim 10, Young and Colucci disclose, the display system of claim 2 (see above).

Colucci further discloses, wherein the projection system comprises: a lens system for projecting a virtual object field (the intermediate image plane in fig. 3 is seen as a virtual object field. The combined projection system of Colucci (Colucci's image source and relay lens assembly) and Young (end projection lens 16 in fig. 1) would satisfy this limitation).

With respect to claim 11, Young and Colucci disclose, the display system of claim 10 (see above).

Colucci further discloses, a projector optically coupled to the lens system (36 in fig. 3), the projector also projects the object field onto a flat image field (intermediate image plane in fig. 3), wherein the object field for the projector is flat (clear from 36 in fig. 3) and the flat image field for the projector serves as the virtual object field (clear from fig. 3) for the lens system.

With respect to claims 12-15, Young and Colucci disclose, the display system of claim 11 (see above).

Colucci further discloses, wherein the image source (projector) can be "a cathode ray tube, field emitter array, or any other two-dimensional image array." Colucci goes on to disclose DLP, LCD, and LCOS projector types (col. 4, lines 9-24).

With respect to claim 16, Young and Colucci disclose, the display system of claim 10 (see above).

Colucci discloses, wherein the virtual object field is generated by a projection (col. 4, lines 3-24).

Young further discloses, the lens system is adapted to be mechanically attached to the projector (note the attachment cable between the lens system (12 in fig. 3) and the base unit).

With respect to clam 18, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the display surface comprises multiple materials (col. 9, lines 46-48, discloses coating the nylon balloon with a second polymer material to prevent leaks.)

With respect to claim 19, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the display surface is seamless (col. 2, lines 24-25, discloses both a seamless surface (integral) or a tiled surface).

With respect to claim 22, Young and Colucci disclose, the display system of claim 2 (see above) and projecting an object field onto a continuous image field on the interior of a display surface.

Colucci further disclose, wherein the object field is flat (clear from fig. 3 that the image source (36) is flat).

With respect to claim 23, Young and Colucci disclose, the display system of claim 22 (see above).

Colucci further discloses, an object in the object field includes an electronically controlled display (col. 4, lines 9-24).

With respect to claim 25, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the display surface is spheroid in shape (85 in fig. 8).

With respect to claim 27, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, wherein the interior of the display surface is approximately in the shape of a rectangular solid (col. 1, line 63, discloses the possibility of another geometric shape being used).

With respect to claim 29, Young and Colucci disclose, the display system of claim 1 (see above).

Young further discloses the image field is a continuous image field having a three-dimensional convex shape (fig. 8) with a ratio of a longest image distance to a shortest image distance is at least 1.75 (see above).

Colucci further discloses, wherein the object field is a virtual, flat object field (clear from fig. 3 that the intermediate image plane (virtual object field) is flat; again note col. 4, lines 5-24).

With respect to claims 30 and 31, Young and Colucci disclose, a display system of claim 29 (see above).

Young further discloses figures that have an image field that subtends to at least 300 degrees fulfilling both claimed limitations (note ray 191 in fig. 9a, as well as figures 8 and 16).

With respect to claim 32, Young and Colucci disclose, the display system of claim 30 (see above).

Young further discloses, wherein the image field is substantially closed around a last clear surface of the lens system (note the edges of figs. 9-11).

With respect to claim 33, Young and Colucci disclose, the display system of claim 30 (see above).

Young further discloses, wherein the image field is approximately spherical (fig. 8).

With respect to claim 34, Young and Colucci disclose, the display system of claim 30 (see above).

Young further discloses, wherein ray bundles destined for a full-field image point exit a last clear surface of the lens system at an angle that is substantially perpendicular to an optical axis of the lens system (clear from the ray disclosed in figs. 10 and 11 for example).

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Bacs, Jr. et al (US 5,546,139).

With respect to claim 17, Young and Colucci disclose, the display system of claim 10 (see above).

Neither Young nor Colucci expressly discloses, wherein the projection system can accommodate display surfaces of varying size by varying a focus of the projector.

Bacs, Jr. discloses, a focusing lens array (18 in fig. 2).

Young, Colucci, and Bacs, Jr. are all analogous art because they are directed to a similar problem solving area, namely wide-angle optical systems.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the focusing lens array of Bacs, Jr. in the optical path of the projection unit of Young and Colucci.

The motivation for doing so would have been to focus the projector (Bacs, Jr. col. 7, lines 4-5).

Therefore it would have been obvious to combine Bacs, Jr. with Young and Colucci for the benefit of a focused image to obtain the invention as specified in claim 17.

5. Claims 20 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Idaszak et al (US 6,530,667).

With respect to claim 20, Young and Colucci disclose, the display system of claim 2 (see above).

Young further discloses, that any geometric shape can be used to for the image field (col. 1, lines 62-63).

Neither Young nor Colucci expressly disclose wherein the image field is axially asymmetric about an optical axis.

Idaszak discloses, an axially asymmetric image field (22 in fig. 12, col. 8, lines 35-40).

Idaszak, Colucci and Young are analogous art because they are all from the same field of endeavor namely, wide-angle projection systems.

At the time of the invention, it would have been obvious to create axially asymmetric image fields on the geometric surfaces of Young and Colucci.

The motivation for doing so would have been to make the projection system adaptable to different display surfaces.

Therefore it would have been obvious to combine Young and Colucci with Idaszak for the benefit of different shaped display surfaces to obtain the invention as specified in claim 20.

With respect to claim 28, Young and Colucci disclose, the display system of claim 2 (see above).

Neither Young nor Colucci expressly disclose, wherein the projection system generates an image suitable for stereoscopic display.

Idaszak discloses the projection system generates an image suitable for stereoscopic display (col. 7, lines 19-28).

At the time of the invention, it would have been obvious to generate images that are stereoscopic, as disclosed by Idaszak, for use in the display system of Young and Colucci.

The motivation for doing so would have been to generate a three-dimensional effect to the user.

Therefore it would have been obvious to combine Young and Colucci with Idaszak for the benefit of a 3D effect for the user to obtain the invention as specified in claim 28.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Jaulmes (US 4,464,029).

With respect to claim 21, Young and Colucci disclose, the display system of claim 2 (see above).

Neither Young nor Colucci expressly disclose the object field is non-circular.

Jaulmes discloses an object field that is non-circular (fig. 3).

Young, Colucci and Jaulmes are analogous art because they are from the same field of endeavor namely wide-angle projection systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace the projection system of Young and Colucci with the film projection system, with non-circular object fields, of Jaulmes.

The motivation for doing so would have been the increased brightness in the displayed image.

Therefore it would have been obvious to combine Jaulmes with Colucci and Young for the benefit of image brightness to obtain the invention as specified in claim 21.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Ligon (US 6,409,351).

With respect to claim 24, Young and Colucci disclose, the display system of claim 22 (see above).

Neither Colucci. nor Young disclose an object in the object field includes a film-based display.

Ligon discloses, a three-dimensional display system that comprises a projector that can be a "*film*, digital or any other kind of projector for producing still or moving images" (col. 3, lines 59-61).

Ligon, Colucci and Young are all analogous art because they are all directed to the same field of endeavor, wide-angle projection systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace the projection unit of Young and Colucci with a film projector of Ligon.

The motivation for doing so would have been increased brightness in the projected image.

Therefore, it would have been obvious to combine Ligon with Colucci and Young for the benefit of image brightness to obtain the invention as specified in claim 24.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Courchesne (US 6,905,218).

With respect to claim 26, Young and Colucci disclose, the display system of claim 2 (see above).

Neither Young nor Colucci expressly disclose, wherein the interior of the display surface is reflective.

Courchesne discloses, wherein the interior of the display surface is reflective (fig. 9).

Courchesne, Colucci and Young are analogous art because they are both directed to the same field of endeavor namely, spherical projection systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to construct the display system of Young and Colucci for operation in the manner as taught by Courchesne, by making the display surface both large enough and reflective.

The motivation for doing so would have been to provide a sense of immersion to the user (Courchesne, col. 3, line 63).

Therefore it would have been obvious to combine Courchesne with Colucci and Young for the benefit of a more immersive experience for the user to obtain the invention as specified in claim 26.

9. Claims 35-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Shimizu (US 3,737,214).

With respect to claim 35, Young and Colucci disclose, the display system of claim 30 (see above).

Neither Young nor Colucci expressly disclose, wherein the lens system corrects chromatic aberration.

Shimizu discloses a lens array (fig. 1) that is substantially equivalent to the applicant's lens system (applicant's fig. 9a) all the properties of the applicant's lens system would thus inherently be properties of Shimizu's lens array. Therefore Shimizu's lens array is inherently capable of correcting chromatic aberration (also note that the angle of field is 220 degrees, greater than the (approx. 180 degree) field of Young).

Shimizu, Colucci and Young are analogous art because they are directed to a similar problem solving area, namely wide angle optically systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace the end projection lens system of Young and Colucci with the lens system of Shimizu.

The motivation for doing so would have been the simplicity and efficiency of Shimizu's lens system (Shimizu, col. 4, lines 38-39).

Therefore it would have been obvious to combine Shimizu with Colucci and Young for the benefit of simplicity to obtain the invention as specified in claim 35.

With respect to claim 36, Young and Colucci disclose, the display system of claim 30 (see above).

Neither Young nor Colucci expressly disclose that at least one lens has an aspheric surface.

Shimizu discloses, that at least one lens has an aspheric surface (note lens, d11 in fig. 1, and its infinite radius of curvature in the table in col. 3).

See the above rejection of claim 35 for the additional merits of the combination.

With respect to claim 37, Young, Colucci and Shimizu disclose, the display system of claim 36 (see above).

Shimizu further discloses, wherein the at least one aspheric surface (d11 for example) significantly changes an image distance to an image point, as a function of field height of the image point (note the ray diagram in fig. 1 and the tightening of the ray bundles upon exit of d11).

With respect to claim 39, Colucci and Young disclose, the display system of claim 30 (see above).

Neither Colucci nor Young expressly disclose, a lens group with negative power.

Shimizu further discloses a lens group with negative power for increasing an exit angle between an optical axis of the lens system and a ray destined for an image point, as a field height of the image point increases (L1- L3, in fig. 1).

See the above rejection of claim 35 for the additional merits of the combination.

With respect to claim 40, Shimizu, Colucci and Young disclose, the display system of claim 39 (see above).

Shimizu further discloses wherein, within the lens group, a footprint of a ray bundle destined for an apex image point does not overlap with a footprint of a ray bundle destined for a full field image point (note the separate ray bundles in fig. 1, that do not overlap after L5).

With respect to claim 41, Shimizu, Colucci and Young disclose, the display system of claim 39 (see above).

Shimizu further discloses, wherein lenses in the lens group have a flat surface around their rims so that the lenses are properly positioned when the flat surfaces contact each other (see lens rims in fig. 1).

10. Claims 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and Shimizu (US 3,737,214) and further in view of Ikeda et al (US 6,560,041).

With respect to claim 38, Young, Colucci and Shimizu disclose, the display system of claim 37 (see above).

Shimizu further discloses a footprint of a ray bundle destined for an apex image point does not overlap with a footprint of a ray bundle destined for a full field image point (note the ray diagram in fig. 1 at the surface of L5).

Neither Young, Colucci or Shimizu expressly discloses that the surface of L5 is aspheric.

Ikeda discloses, a lens system that is very similar to that of Shimizu. Ikeda also discloses, using aspherical surfaces on those lenses (col. 2, lines 31-41).

Young, Shimizu, Colucci, and Ikeda are all analogous art because they are directed to a similar problem solving area namely, wide-angle optical systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to make the surface of L5 of the lens system of Shimizu, Young and Colucci aspheric as taught by Ikeda.

The motivation for doing so would have been to correct distortion and chromatic aberration (Ikeda, col. 2, lines 34-37).

Therefore it would have been obvious to combine Ikeda with Young, Colucci and Shimizu for the benefit of correcting aberration to obtain the invention as specified in claim 38.

With respect to claim 42, Young, Colucci and Shimizu disclose, the display system of claim 30 (see above).

Shimizu further discloses, wherein the lens system comprises, in the following order along an optical axis: a first lens group located close to an aperture of the lens system (d11-d22), the first lens group correcting for chromatic aberration; a second lens group (L4, L5); and a third lens group with negative power for increasing an exit angle between the optical axis and a ray destined for an image point (L1, L2, L3), as a field height of the image point increases, wherein the second lens group acts as a partial field lens between the first lens group and the third lens group (as the lens array of Shimizu (fig. 1) is substantially equivalent to the lens system of the applicants (fig. 9a) the behavior of the optics is also equivalent.).

Neither Young, Colucci or Shimizu disclose, that the second lens group includes an aspheric surface, for significantly changing an image distance to an image point as a function of field height of the image point.

Ikeda discloses, a lens system that is very similar to that of Shimizu. Ikeda also discloses, using aspherical surfaces on those lenses (col. 2, lines 31-41).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to make the surface of L5 of the lens system of Shimizu and Young aspheric as suggested by Ikeda.

The motivation for doing so would have been to correct distortion and chromatic aberration (Ikeda, col. 2, lines 34-37).

Therefore it would have been obvious to combine Ikeda with Young, Colucci and Shimizu for the benefit of correcting aberration to obtain the invention as specified in claim 42.

11. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 6,698,900) in view of Colucci et al. (US 6,880,939) and further in view of Jaulmes et al (US 4,464,029).

With respect to claim 43, Young and Colucci disclose, the display system of claim 30 (see above).

Neither Young nor Colucci expressly disclose, wherein the object field is asymmetric about an optical axis of the lens system.

Jaulmes discloses an object field that is non-circular (fig. 3).

Young, Colucci and Jaulmes are analogous art because they are from the same field of endeavor namely wide-angle optical systems.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace the laser projection system of Young and Colucci with the film projection system with non-circular object fields of Jaulmes.

The motivation for doing so would have been the much lower cost associated with film projection systems versus the cost of a laser projection system.

Therefore it would have been obvious to combine Jaulmes with Young, and Colucci for the benefit of cost to obtain the invention as specified in claim 43.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, call the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wlb
6-27-06

AMR A. AWAD
PRIMARY EXAMINER